

TECHNIQUE FOR PRINTING A COLOR IMAGE

ABSTRACT OF THE DISCLOSURE

A technique for optimizing or enhancing color images. Embodiments are disclosed for creating an enhanced color image, including the enhancement of perceived color uniformity. In a "dot-on-dot" registration scheme for producing color images, the dots need to be precisely superimposed on each other to provide optimum or enhanced images. The dot-on-dot registration produced by a single head thermal printer is generally acceptable, but a single head machine is very slow because multiple passes (reciprocation) are required to lay down multiple colors of dots. In a much faster multi-head or tandem thermal imaging system a serious problem of dot misalignment may cause moire patterns or other visual artifacts in the color images produced by dot patterns. A solution to this problem is disclosed herein which intentionally misregisters superimposed dots in a novel and particular manner to achieve image optimization. In a particular embodiment a first thermal print head has a first number of thermal elements energized at a first rate and a second thermal print head has a second number of thermal elements energized at a second rate. The numbers of thermal elements and rates of energization are selected to cause intentional misregistration at a high spatial frequency which is unnoticeable to the naked eye of a viewer of the image, thereby masking any unintentional mechanical misalignment of the print heads while maintaining imperceptible the intentional misregistration of the solution to the problem.